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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,453	09/01/2004	Yasunori Miki	P25880	8270
7055	7590	11/29/2006		
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER ELVE, MARIA ALEXANDRA	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/505,453

Applicant(s)

MIKI ET AL.

Examiner

M. Alexandra Elve

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/04, 2/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/1/04</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Japan (2003-185748) on 06/27/2003. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

### ***Claim Objections***

Claims 1 & 12 are objected to because of the following informalities: "in the vicinity if the other end" and "removing a solution of gold is acted to the gold plating layer". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant states that there is an exclusion of gold and then states that gold is included.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. The applicant states that the "elements is arranges at a predetermined pitch an a side of band metal plate".

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (5-90835).

JP ('835) discloses a connector with a terminal and a contact end. The mid-section of the connector is formed as an insulator in that flux and soldering cannot wet the section. Nickel plating and gold plating cover the connector.

The prior art discloses a product substantially similar to a claimed product, differing only in the manner by which it is produced. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed product because of the similarity in properties. The burden falls to the applicant to show that any process steps associated with the claimed product result in a materially different product from those of the prior art, because there is nothing in the record

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before the examiner to reasonably conclude that applicant's product differs in kind from those obtained by the reference. See In re Brown 173 USPQ 685 and In re Fessman 180 USPQ 324.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriuchi et al. (USPN 5,957,736).

Moriuchi et al. discloses an electronic part, that is, a contact. The contact (1) has a terminal portion (2) and contact portion (3). The contact may be plated with nickel, gold, palladium tin and so forth. The nickel oxide portion (4) prevents the solder from wicking, that is, diffusion prevention area due to the low wettability.

The prior art discloses a product substantially similar to a claimed product, differing only in the manner by which it is produced. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed product because of the similarity in properties. The burden falls to the applicant to show that any process steps associated with the claimed product result in a materially different product from those of the prior art, because there is nothing in the record before the examiner to reasonably conclude that applicant's product differs in kind from those obtained by the reference. See In re Brown 173 USPQ 685 and In re Fessman 180 USPQ 324.

Claims 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (5-90835) as stated above and further in view of JP (60-238489).

JP ('835) does not disclose the use of lasers in the formation of the plated layers. JP ('489) discloses the formation of a metallic coating (contains Ni) in which a laser melts the metallic film forming an amorphous film. The amorphous film has high corrosion resistance, toughness and strength.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a laser beam, as taught by JP ('489) in the JP ('835) system because of the enhanced material properties with the new film.

Claims 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriuchi et al. as stated above and further in view of JP (60-238489).

Moriuchi et al. does not disclose the use of lasers in the formation of the plated layers.

JP ('489) discloses the formation of a metallic coating (contains Ni) in which a laser melts the metallic film forming an amorphous film. The amorphous film has high corrosion resistance, toughness and strength.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a laser beam, as taught by JP ('489) in the Moriuchi et al. system because of the enhanced material properties with the new film.

Claims 6-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (5-90835) as stated above and further in view of Hashimoto et al. (USPN 4,772,773).

JP ('835) does not disclose the use of lasers and their properties.

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Hashimoto et al. discloses the processing of overlaid amorphous alloys layers. A laser melts the alloy layers and the vitrified phase is less than  $10^{-2}$  sec. The beam irradiation time for melting must be smaller than  $5 \text{ joule} \cdot \text{sec}/\text{cm}^2$ . The 200 W  $\text{CO}_2$  laser whose diameter on the specimen surface was  $100 \mu\text{m}$  was irradiated during the movement of the specimen along the x-axis at  $436 \text{ mm}/\text{sec}$ . The amorphous alloys thus formed have a very high mechanical strength with a considerable toughness, and some of them possess extremely high corrosion resistance.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a laser beam, as taught by Hashimoto et al. in the JP ('835) system because of the enhanced material properties with the new film.

Claim 6-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriuchi et al. as stated above and further in view of Hashimoto et al. (USPN 4,772,773).

Moriuchi et al. does not disclose the use of lasers and their properties. Hashimoto et al. discloses the processing of overlaid amorphous alloys layers. A laser melts the alloy layers and the vitrified phase is less than  $10^{-2}$  sec. The beam irradiation time for melting must be smaller than  $5 \text{ joule} \cdot \text{sec}/\text{cm}^2$ . The 200 W  $\text{CO}_2$  laser whose diameter on the specimen surface was  $100 \mu\text{m}$  was irradiated during the movement of the specimen along the x-axis at  $436 \text{ mm}/\text{sec}$ . The amorphous alloys thus formed have a very high mechanical strength with a considerable toughness, and some of them possess extremely high corrosion resistance.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to use a laser beam, as taught by Hashimoto et al. in the Moriuchi et al. system because of the enhanced material properties with the new film.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 26, 2006.



M. Alexandra Elve  
Primary Examiner 1725